REFERENCES 69

[22] Q. Stiévenart, D. Binkley, and C. De Roover, "Dynamic slicing of webassembly binaries," in 39th IEEE International Conference on Software Maintenance and Evolution, IEEE, 2023.

- [23] Q. Stiévenart, D. W. Binkley, and C. De Roover, "Static stack-preserving intra-procedural slicing of webassembly binaries," in *Proceedings of the 44th International Conference on Software Engineering*, ICSE '22, (New York, NY, USA), p. 2031–2042, Association for Computing Machinery, 2022.
- [24] C. Watt, J. Renner, N. Popescu, S. Cauligi, and D. Stefan, "Ct-wasm: Type-driven secure cryptography for the web ecosystem," *Proc. ACM Program. Lang.*, vol. 3, jan 2019.
- [25] M. Musch, C. Wressnegger, M. Johns, and K. Rieck, "New kid on the web: A study on the prevalence of webassembly in the wild," in *Detection of Intrusions and Malware*, and Vulnerability Assessment: 16th International Conference, DIMVA 2019, Gothenburg, Sweden, June 19–20, 2019, Proceedings 16, pp. 23–42, Springer, 2019.
- [26] R. K. Konoth, E. Vineti, V. Moonsamy, M. Lindorfer, C. Kruegel, H. Bos, and G. Vigna, "Minesweeper: An in-depth look into drive-by cryptocurrency mining and its defense," in *Proceedings of the 2018 ACM SIGSAC Conference on Computer and Communications Security*, pp. 1714–1730, 2018.
- [27] A. Romano, Y. Zheng, and W. Wang, "Minerray: Semantics-aware analysis for ever-evolving cryptojacking detection," in *Proceedings of the 35th IEEE/ACM International Conference on Automated Software Engineering*, pp. 1129–1140, 2020.
- [28] F. N. Naseem, A. Aris, L. Babun, E. Tekiner, and A. S. Uluagac, "Minos: A lightweight real-time cryptojacking detection system.," in *NDSS*, 2021.
- [29] W. Wang, B. Ferrell, X. Xu, K. W. Hamlen, and S. Hao, "Seismic: Secure in-lined script monitors for interrupting cryptojacks," in *Computer Security:* 23rd European Symposium on Research in Computer Security, ESORICS 2018, Barcelona, Spain, September 3-7, 2018, Proceedings, Part II 23, pp. 122–142, Springer, 2018.
- [30] J. D. P. Rodriguez and J. Posegga, "Rapid: Resource and api-based detection against in-browser miners," in *Proceedings of the 34th Annual Computer Security Applications Conference*, pp. 313–326, 2018.
- [31] A. Kharraz, Z. Ma, P. Murley, C. Lever, J. Mason, A. Miller, N. Borisov, M. Antonakakis, and M. Bailey, "Outguard: Detecting in-browser covert cryptocurrency mining in the wild," in *The World Wide Web Conference*, pp. 840–852, 2019.

70 REFERENCES

[32] D. Genkin, L. Pachmanov, E. Tromer, and Y. Yarom, "Drive-by key-extraction cache attacks from portable code," *IACR Cryptol. ePrint Arch.*, vol. 2018, p. 119, 2018.

- [33] G. Maisuradze and C. Rossow, "Ret2spec: Speculative execution using return stack buffers," in *Proceedings of the 2018 ACM SIGSAC Conference on Computer and Communications Security*, CCS '18, (New York, NY, USA), p. 2109–2122, Association for Computing Machinery, 2018.
- [34] T. Rokicki, C. Maurice, M. Botvinnik, and Y. Oren, "Port contention goes portable: Port contention side channels in web browsers," in *Proceedings* of the 2022 ACM on Asia Conference on Computer and Communications Security, ASIA CCS '22, (New York, NY, USA), p. 1182–1194, Association for Computing Machinery, 2022.
- [35] D. Lehmann, J. Kinder, and M. Pradel, "Everything old is new again: Binary security of webassembly," in 29th USENIX Security Symposium (USENIX Security 20), USENIX Association, Aug. 2020.
- [36] Q. Stiévenart, C. De Roover, and M. Ghafari, "Security risks of porting c programs to webassembly," in *Proceedings of the 37th ACM/SIGAPP Symposium on Applied Computing*, SAC '22, (New York, NY, USA), p. 1713–1722, Association for Computing Machinery, 2022.
- [37] B. Baudry and M. Monperrus, "The multiple facets of software diversity: Recent developments in year 2000 and beyond," ACM Comput. Surv., vol. 48, sep 2015.
- [38] K. Pohl, G. Böckle, and F. Van Der Linden, Software product line engineering: foundations, principles, and techniques, vol. 1. Springer, 2005.
- [39] T. Y. Chen, F.-C. Kuo, R. G. Merkel, and T. H. Tse, "Adaptive random testing: The art of test case diversity," J. Syst. Softw., vol. 83, pp. 60–66, 2010.
- [40] S. Sidiroglou-Douskos, S. Misailovic, H. Hoffmann, and M. Rinard, "Managing performance vs. accuracy trade-offs with loop perforation," in *Proceedings of the 19th ACM SIGSOFT Symposium and the 13th European Conference on Foundations of Software Engineering*, ESEC/FSE '11, (New York, NY, USA), p. 124–134, Association for Computing Machinery, 2011.
- [41] Avizienis and Kelly, "Fault tolerance by design diversity: Concepts and experiments," *Computer*, vol. 17, no. 8, pp. 67–80, 1984.
- [42] F. B. Cohen, "Operating system protection through program evolution.," Computers & Security, vol. 12, no. 6, pp. 565–584, 1993.
- [43] T. Jackson, On the Design, Implications, and Effects of Implementing Software Diversity for Security. PhD thesis, University of California, Irvine, 2012.